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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/791,377	
	Filing Date	March 2, 2004
	First Named Inventor	M. Dantus et al.
	Art Unit	2828
	Examiner Name	D. Ruiz
Total Number of Pages in This Submission	Attorney Docket Number	6550-000057/CPE

## ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Supplemental Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <b>Form 1449 (3 sheets)</b> <b>1 JP Patent, 17 Other Docs.;</b> <b>Return Postcard</b>
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### Remarks

The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name	Monte L. Falcoff	Reg. No.	37,617
Signature					
Date	August 22, 2007				

## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Monte L. Falcoff	Express Mail Label No.	EV 755 419 105 US (8/22/2007)
Signature		Date	August 22, 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.F./

EV 755 419 105 US



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

Application No.: 10/791,377  
Filing Date: March 2, 2004  
Applicant: Marcos Dantus et al.  
Group Art Unit: 2828  
Examiner: D. Ruiz  
Title: LASER SYSTEM USING ULTRA-SHORT LASER PULSES  
Attorney Docket: 6550-000057/CPE

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Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) each U.S. patent and U.S. patent application publication and (iv) all other information or that portion which caused it to be listed.

B. ☐ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial NumberU.S. Filing Date

C. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☐ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☐ See the attached foreign patent office communication from a counterpart foreign application:

2. ☒ English translations are provided:

3. ☒ Other:

JP 2003-155256 appears to disclose a method of an absolute asymmetric synthesis, capable of utilizing a long wave length CPL such as visible light, etc. This method of the absolute asymmetric synthesis is characterized by using starting materials of enantiomers each other or diastereomers each other between which a thermal conversion does not take place, and a pulse laser as a light source for an r-CPL or l-CPL in which the wave length of the r-CPL or l-CPL is the wave length where the starting materials do not absorb the light in their UV to visible absorption spectra and have longer wave lengths than those of first absorption zones of the starting materials, and irradiating the r-CPL or l-CPL on the starting materials for performing a non-resonant 2-photon excitation to obtain an optically active substance.

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☐ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.Filing DateArt UnitV. THIS IDS IS BEING FILED UNDER

A. ☒ **37 C.F.R. § 1.97(b):** (check only one box)

1. ☐ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ☒ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either a Notice of Allowance under 37 C.F.R. § 1.311 or an action that otherwise closes prosecution.

1. ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ 37 C.F.R. § 1.97(d):

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ☐ some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. 1.704(d)

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A. ☐ A check in the amount of \$180.00 is enclosed for the above identified fee.

B. ☐ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

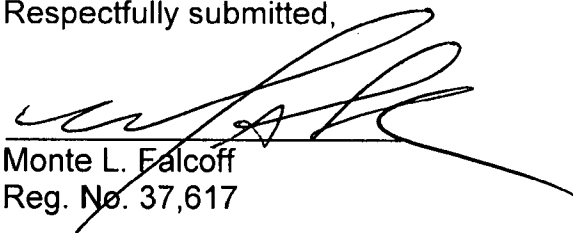
Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated:

*August 22, 2007*

By:

  
Monte L. Falcoff  
Reg. No. 37,617

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MLF/MJL/cn

AUG 22 2007

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 1 of 3	ATTORNEY DOCKET NO.	SERIAL NO.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Marcos Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	2828

### U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		6,402,898 B1	6-11-2002	Brumer, Paul, et al.		
2.		2006/066848 A1	3-30-2006	Frankel, Robert		
3.		2005/226287	10-13-2005	Shah Lawrence et al.		
4.		2005/155958 A1	07-3-2005	Arai Kunio et al.		

### FOREIGN PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		JP 2003 155256 A	05-27-2003	Japan		Abstract	

### OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
1.	/D.F./	Kroner, D. et al., Asymmetric Laser Excitation in Chiral Molecules: Quantum Simulations for a Proposed Experiment, Chemical Physics Letters Elsevier Netherland, volume 372, no. 1-2, 22 April 2003, pages 242-248.
2.	/D.F./	Hoki, K. et al., Locally Designed Pulse Shaping for Selective Preparation of Enantiomers from their Racemate", Journal of Chemical Physics, New York, NY, US, volume 114, no. 4, January 22, 2001, pages 1575-1581
3.	/D.F./	Bychkov S. S. et al., Laser Synthesis of Chiral Molecules in Isotropic Racemic Media, Journal of Experimental and Theoretical Physics, Nauka/Interperiodica, MO, volume 93, no. 1, 1 July 2001, pages 24-32.
4.	/D.F./	Hoki, K. et al., Selective Preparation of Enantiomers from a Racemate by Laser Pulses: Model Simulation for Oriented Atropisomers with Coupled Rotations and Torsions, Chemical Physics Elsevier Netherlands, vol. 267, no. 1-3, 1 June 2001, pages 59-79.
5.	/D.F./	Brixner T., et al., Quantum Control by Ultrafast Polarization Shaping, Phys Rev Lett, vol. 92, no. 20, 21 May 2004, pages 208301-1.

Examiner: /Delma Forde/

Date Considered: 04/21/2008

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.F./

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 2 of 3	ATTORNEY DOCKET No.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Marcos Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	2828

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
6.	/D.F./	Thanopoulos I. et al: Laser-Driven Coherent Manipulation of Molecular Chirality, Chemical Physics Letters Elsevier Netherlands, vol. 390, no. 1-3, 21 May 2004, pages 228-235.
7.	/D.F./	Atabek, O. et al., Intense Laser Control of the Chemical Bond, Theochem Elsevier Netherlands, vol. 493, 15 December 1999, pages 89-101.
8.	/D.F./	Pelfang Tian et al., Femtosecond Phase-Coherent Two-Dimensional Spectroscopy, Science American Assoc. Adv. Sci. USA, vol. 300, no. 5625, 6 June 2003, pages 1553-1555.
9.	/D.F./	Motzkus, M., Open and Closed Loop Control of Complex Molecules with Shaped fs Pulses, 2003 International Conference Physics and Control. Proceedings (Cat. No. 03EX708), IEEE Piscataway, NJ, USA, vol. 3, 2003, page 746, vol. 3.
10.	/D.F./	MA R., et al., Intense Femtosecond Laser Field-Induced Coulomb Fragmentation of C <sub>2</sub> H <sub>4</sub> , International Journal of Mass Spectrometry, Elsevier, Amsterdam, NL, vol. 242, no. 1, 15 March 2005, pages 43-48.
11.	/D.F./	Wu, C. et al., Mass and Photoelectron Spectrometer for Studying Field-Induced Ionization of Molecules, International Journal of Mass Spectrometry, Elsevier Science Publishers, Amsterdam, NL, vol. 216, no. 3, 15 May 2002, pages 249-255.
12.	/D.F./	Chen J. et al., Femtosecond Laser-Induced Dissociative Ionization and Coulomb Explosion of Ethanol, International Journal of Mass Spectrometry, Elsevier, Amsterdam, NL, vol. 241, no. 1, 15 February 2005, pages 25-29.
13.	/D.F./	Wu, Chengyin et al., Laser-Induced Dissociation and Explosion of Methane and Methanol, J. Phys. B. At. Mol. Opt. Phys; Journal of Physics B: Atomic, Molecular and Optical Physics, 14 June 2002, vol. 35, no. 11, pages 2575-2582.
14.	/D.F./	Tomizawa H. et al., Development of Automatically Optimizing System of Both Spatial and Temporal Beam Shaping for UV-Laser Pulse, Proceedings of the SPIE - The International Society for Optical Engineering SPIE-Int. Soc. Opt. Eng USA, vol. 5481, no. 1, 2004, pages 47-55.
15.	/D.F./	Yu, Huang, et al., Application of Adaptive Feedback Loop for Ultra-Violet Femtosecond Pulse Shaper Control, Optics Express Opt. Soc. America USA, vol. 14, no. 21, October 2006.
16.	/D.F./	Roth, M. et al., Acousto-Optic Femtosecond Pulse Shaping in the Ultraviolet, Lasers and Electro-Optics, 2005. (Cleo). Conference in Baltimore, Md., USA, May 22-27, 2005, Piscataway, NJ, USA. IEEE, 22 May 2005, pages 2244-2246.

Examiner: /Delma Forde/	Date Considered: 04/21/2008
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.F./



<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 3 of 3	ATTORNEY DOCKET No.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Marcos Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	2828

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
17.	/D.F./	Roth, M. et al., Acousto-optical Shaping of Ultraviolet Femtosecond Pulses, Applied Physics B; Lasers and Optics, Springer-Verlag, BE, vol. 80, no. 4-5, 1 April 2005, pages 441-444.

Examiner:	/Delma Forde/	Date Considered:	04/21/2008
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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